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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,136	11/19/2001	Toshihiro Oouchi	216315US2S	8183

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EXAMINER
NELSON, FREDA ANN

ART UNIT	PAPER NUMBER
3639	

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)
		09/988,136	OOUCHI, TOSHIHIRO
Office Action Summary		Examiner	Art Unit	
		Freda A. Nelson	3639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 September 2005</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-14</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-8</u> is/are rejected.
7)☒ Claim(s) <u>2 and 8</u> is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

This is in response to a communication filed September 23, 2005 wherein:

Claims 1-8 were elected; and

Claims 1-14 are currently pending.

Response to Amendment and Arguments

1.   Applicant's election with traverse of claims 1-8 in the communication filed

September 23, 2005 is acknowledged. The traversal is on the ground(s) that undue

searching should not be required. This is not found persuasive because Examiner

believes that the restriction is proper since the subcombinations are distinct from each

other and are shown to be separately usable. Invention 1 (Claims 1-8) has separate

utility such as extracting an estimation element necessary determine a manufacturing

process; extracting a cost physical unit value, which corresponds to the estimation

element, from a physical unit table showing cost physical unit values used in

each step the manufacturing process; automatically converting an estimation formula,

expressed at least by a four-rule calculation rule, format which can be executed by a

preinstalled programming rule; and substituting the physical unit value the estimation

formula converted into the format, thereby obtaining costs said each step. Invention I is

classified in class 705, subclass 400. Invention II (Claims 9-14) has separate utility

such as extracting an estimation element necessary determine manufacturing steps;

setting the steps manufacturing a product on the basis of the estimation element;

estimating required for each step; process rate, and adding a material cost

the result, thereby calculating a whole cost; estimating and analyzing a rate-determining

factor on the basis the estimated costs and whole cost; and executing a cost simulation

by varying the processing step, analyzing degree influence upon the whole cost and

assisting the designing of the manufacturing steps. Invention II is classified in class 705,

subclass 10. Examiner notes that it would be a serious burden to search both

inventions given their separate status in the art as noted above.

2.   The requirement is still deemed proper and is therefore made FINAL. A

complete reply to the final rejection must include cancellation of the nonelected claims

or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

3.   Claims 9-14 are withdrawn from further consideration pursuant to 37 CFR

1.142(b), as being drawn to a nonelected invention, there being no allowable generic or

linking claim. Applicant timely traversed the restriction (election) requirement in the reply

filed on September 23, 2005.

4.   Applicant is reminded that upon the cancellation of claims to a non-elected

invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one

or more of the currently named inventors is no longer an inventor of at least one claim

remaining in the application. Any amendment of inventorship must be accompanied by

a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Priority

5.   Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which

papers have been placed of record in the file.

Information Disclosure Statement

6.   The information disclosure statement (IDS) submitted on 11/19/2001 is in

compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure

statement is being considered by the examiner. A copy of PTO-1449 is attached

hereto.

Specification

7.   The disclosure is objected to because of the following informalities:

Page 9, line 11, insert "is" after "FIG. 1".

Appropriate correction is required.

Claim Objections

8.   Claim 2 is objected to because of the following informalities:

In claim 2, line 15, insert "and" after "table;"; and

In claim 8, line 3, remove "is extracted".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9.   Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Hino et al.

(Patent Number 5,655,087).

      In claim 1, Hino et al. disclose a cost-estimation method comprising:
      extracting an estimation element necessary determine a manufacturing process (col. 1, lines 37-49);
      extracting a cost physical unit value, which corresponds to the estimation element, from a physical unit table showing cost physical unit values used in each step the manufacturing process (col. 1, lines 37-49; FIGS. 2 and 4); and
      automatically converting an estimation formula, expressed at least by a four-rule calculation rule, into a format which can be executed by a preinstalled programming rule (col. 4, lines 14-26); and substituting the physical unit value in the estimation formula converted into the format, thereby obtaining costs said each step (col. 1, lines 57-59 and col. 2, lines 37-39).

      In claim 2, Hino et al. disclose the cost estimation method recited in claim 1, wherein the step of executing automatic conversion includes:
      creating a first source program configured extract the estimation element from the estimation formula, and to convert the estimation element into a format which can be executed by the preinstalled programming rule;
      creating a second source program configured to extract, from the estimation formula, the estimation formula, the estimation element included in the physical unit table, to convert the estimation element into the format which can be executed by the by the preinstalled programming rule, and to extract the physical unit value from the physical unit table; and
      converting the estimation formula into the format which can be executed by the preinstalled programming rule, on the basis the first and second source programs.

      In claim 3, Hino et al. disclose the cost estimation method recited in claim 1, wherein in the step of executing automatic conversion, the estimation element is extracted from the estimation formula by determining an identifier and a name of the estimation element in the estimation formula, thereby converting the estimation element into the format which can be executed by the preinstalled programming rule (FIGS. 5 and 6).

      In claim 4, Hino et al. disclose the cost estimation method recited in claim 1, wherein the estimation formula contains a function (col. 4, lines 14-26).

10.   Claims 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et

al. (US PG Pub. 2001/0023418).

In claim 5, Suzuki et al. disclose a cost-estimation apparatus comprising:
an estimation element database which stores an estimation element necessary
to determine a manufacturing process from a three-dimensional product CAD model
(paragraph 0008; FIGS. 1 and 3);
an estimation reference database which stores a cost physical unit value used in
each step of the manufacturing process (paragraph 0008; FIGS. 1 and 3);
an estimation-element-extracting section which extracts the estimation element
from the estimation element database (paragraph 0029); and
a source-program-creating section configured to create a source program, the
source program automatically converting an estimation formula, expressed at least by a
four-rule calculation rule, into a format which can be executed by a preinstalled
programming rule (FIG 16); and
a cost-estimating section configured to obtain costs of said each step by
substituting the physical unit value, extracted from a physical unit table, in the
estimation formula converted by the source-program-creating section (paragraphs 0104
and 0106).

In claim 6, Suzuki et al. disclose that the cost estimation apparatus as recited in
claim 5, wherein the estimation formula contains a function, and the source-program-
creating section converts estimation formula into the format which can be executed by
the preinstalled programming rule (FIG. 16).

In claim 7, Suzuki et al. disclose the cost estimation apparatus as recited in claim
5, wherein the source-program-creating section includes:
a first source-program-creating section which creates a first source program
configured to extract the estimation element from the estimation formula, and convert
the estimation element into format which can be executed by the preinstalled
programming rule (paragraph 0008; FIG. 9);
a second source-program-creating section which creates second source program
configured to extract, from the estimation formula, the estimation element included in
the physical unit table, to convert the estimation element into the format which can be
executed by the preinstalled programming rule, and to extract the physical unit value
from the physical unit table (paragraph 0008; FIG. 9); and
a third source-program-creating section which converts, on the basis of the first
and second source programs created by the first and second source-program-creating
sections, the estimation formula into the format which can be executed by the
preinstalled programming rule (paragraphs 0035 and 0036).

In claim 8, Suzuki et al. disclose the cost estimation apparatus as recited in claim 5, wherein the source-program-creating section extracts the estimation element from the estimation formula on the basis of an identifier and a name of the estimation element in the estimation formula (paragraph 0029, FIGS 9 and 16).

Conclusion

11.   The examiner has cited prior ad of interest, for example:

1) Evans et al. (Patent Number 6,775,647), which disclose a method and system for estimating manufacturing costs.

2) Fad et al. (Patent Number 5,793,632), which disclose a Cost estimating system using parametric estimating and providing a split of labor and material costs.

3) Foley et al. (Patent Number 5,249,120), which disclose an automated manufacturing costing system and method.

4) Kaepp et al. (Patent Number 5,748,943), which disclose an intelligent process.

5) Kashiwamura et al. (Patent Number 6,132,108), which disclose a design support method for a structure and the like.

6) Oki et al. (JP 09160945), which disclose a device and method for estimating cost.

7) Tanaka et al. (Patent Number 6,343,285), which disclose an estimation and designing supporting apparatus.

8) Henderson, Mark Richard, PH.D., Purdue University, "Extraction of feature information from three-dimensional cad data", 1984, 153 pages.
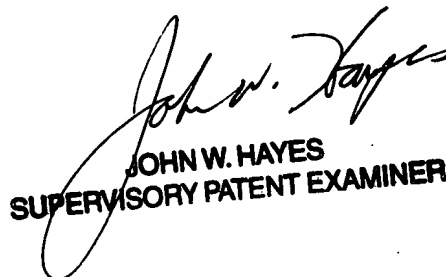
12.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Freda A. Nelson whose telephone number is (571) 272-7076. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FAN 10/16/2005

JOHN W. HAYES
SUPERVISORY PATENT EXAMINER